

In the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (currently amended): A transreflective liquid crystal display device implementing a color filter having various thicknesses, comprising:

a lower substrate having an insulating layer thereon;

a lower electrode formed on the insulating layer, wherein the lower electrode has a transmissive portion and a reflective portion;

an upper substrate opposing the lower substrate, wherein a side of the upper substrate has a color filter having a first thickness portion and a second thickness portion, the first thickness portion is thicker than the second thickness portion, and the first thickness portion corresponds to the transmissive portion and the second thickness portion corresponds to the reflective portion;

a transparent organic planarization layer formed on the color filter, wherein the planarization layer is opposite to the lower substrate;

an upper electrode formed on the transparent organic planarization layer; and

a liquid crystal layer interposed between the upper substrate and the lower substrate.

2. (original): The transreflective LCD device according to claim 1, the upper substrate having a first region and a second region thereon, wherein the color filter comprises:

a thick color resist layer formed on the upper substrate; and

a thin color resist layer formed on the upper substrate in the second region, wherein the thin color resist is formed by removing part of the thick color resist layer in the second region.

3. (currently amended): The transreflective LCD device according to claim 1, wherein the organic transparent planarization layer is a benzocyclobutene (BCB) resin or an acryl resin, an organic or inorganic insulating layer.

4. (original): The transreflective LCD device according to claim 2, wherein the thick color resist layer comprises positive or negative photoresist.

5. (original): The transreflective LCD device according to claim 4, wherein the thick color resist layer comprises the positive photoresist, further comprising:

an exposure light and a photomask for performing a photolithography procedure on the thick color resist layer to remove part of the thick color resist layer in the second region;

wherein the photomask comprises:

a first pattern for shading the first region from the exposure light; and

a second pattern for decreasing an intensity of the exposure light penetrating the second pattern, corresponding to the second region.

6. (original): The transreflective LCD device according to claim 5, wherein the second pattern is a half-tone pattern.

7. (original): The transreflective LCD device according to claim 6, wherein the second pattern comprises a plurality of micro patterns.

8. (original): The transreflective LCD device according to claim 4, wherein the thick color resist layer comprises the negative photoresist, further comprising:

an exposure light and a photomask for performing a photolithography procedure on the thick color resist layer to remove part of the thick color resist layer in the second region;

wherein the photomask comprises:

a first pattern for transmitting the exposure light to the first region; and

a second pattern for decreasing an intensity of the exposure light penetrating the second pattern, corresponding to the second region.

9. (original): The transreflective LCD device according to claim 8, wherein the second pattern is a half-tone pattern.

10. (original): The transreflective LCD device according to claim 9, wherein the second pattern comprises a plurality of micro patterns.

11. (currently amended): A transreflective liquid crystal display device implementing a color filter having various thicknesses, comprising:

a lower substrate having an insulating layer thereon;

a lower electrode formed on the insulating layer, wherein the lower electrode has a transmissive portion and a reflective portion;

a color filter having various thicknesses formed on the lower electrode, wherein the color filter has a first thickness portion and a second thickness portion, the first thickness portion is thicker than the second thickness portion, and the first

thickness portion corresponds to the transmissive portion and the second thickness portion corresponds to the reflective portion;
a transparent organic planarization layer formed on the color filter;
an upper substrate opposing the lower substrate;
an upper electrode formed on the upper substrate; and
a liquid crystal layer interposed between the upper substrate and the lower substrate.

12. (original): The transreflective LCD device according to claim 11, the lower electrode having a first region and a second region thereon, wherein the color filter comprises:

a thick color resist layer formed on the lower electrode; and
a thin color resist layer formed on the lower electrode in the second region, wherein the thin color resist layer is formed by removing part of the thick color resist layer in the second region.

13. (currently amended): The transreflective LCD device according to claim 11, wherein the organic transparent planarization layer is a benzocyclobutene (BCB) resin or an acryl resin.
~~an organic or inorganic insulating layer~~.

14. (original): The transreflective LCD device according to claim 12, wherein the thick color resist layer comprises positive or negative photoresist.

15. (original): The transreflective LCD device according to claim 14, wherein the thick color resist layer comprises the positive photoresist, further comprising:

an exposure light and a photomask for performing a photolithography procedure on the thick color resist layer to remove part of the thick color resist layer in the second region;

wherein the photomask comprises:

a first pattern for shading the first region from the exposure light; and

a second pattern for decreasing an intensity of the exposure light penetrating the second pattern, corresponding to the second region.

16. (original): The transflective LCD device according to claim 15, wherein the second pattern is a half-tone pattern.

17. (original): The transflective LCD device according to claim 16, wherein the second pattern comprises a plurality of micro patterns.

18. (original): The transflective LCD device according to claim 14, wherein the thick color resist layer comprises the negative photoresist, further comprising:

an exposure light and a photomask for performing a photolithography procedure on the thick color resist layer to remove part of the thick color resist layer in the second region;

wherein the photomask comprises:

a first pattern for transmitting the exposure light to the first region; and

a second pattern for decreasing an intensity of the exposure light penetrating the second pattern, corresponding to the second region.

19. (original): The transflective LCD device according to claim 18, wherein the second pattern is a half-tone pattern.

20. (original): The transflective LCD device according to claim 19, wherein the second pattern comprises a plurality of micro patterns.

21. – 28. (Canceled)